

# COURSE OUTLINES (SYLLABI) FOR UNDERGRADUATE COURSES

#### 1. General Course Information

#### **Course Information**

Biology for Sciences I (B1001A), FW21 is offered in a blended format. Certain components of the course are online and other components in-person. Lectures are asynchronous (slides and videos posted on OWL for students to watch at their leisure). Students will attend live session with the professor once per week (Wed or Thurs, depending on their Western Timetable) where they can receive answers to any course related questions they have and participate in some active learning. Skill Development (Labs) sessions are delivered synchronously in-person and synchronously over Zoom during the student's scheduled lab session.

## **List of Prerequisites**

Grade 12U (SB14U) Biology or Grade 11U (SB13UA) Biology and permission of the Department. A minimum mark of 80% in Grade 12 U Biology (SB14U) is recommended for students registered in a faculty other than the Faculty of Science. Note: The combination of Biology 1001A and 1002B (with appropriate marks) are the prerequisites for senior Biology courses and admission to modules offered by the Department of Biology and the Basic Medical Science Departments

Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

# Mode of delivery

This course is delivered in a blended format which means it is delivered both online and inperson. Students HAVE to be available for synchronous interactions (in person or via Zoom) during their scheduled lab sessions. Lectures are delivered asynchronously for students to watch at their own time but all students have the opportunity to learn from the professor inperson by attending the Q&A sessions held weekly [Wed (10:30-11:30 AM) or Thurs (9:30-10:30 AM or 10:30-11:30 AM) in NCB 101]. Students are to attend the session they registered for on their timetable.

All course material will be posted to OWL: <a href="http://owl.uwo.ca">http://owl.uwo.ca</a>. Any changes will be indicated on the OWL site and discussed with the class.

If students need assistance, they can seek support on the <u>OWL Help page</u>. Alternatively, they can contact the <u>Western Technology Services Helpdesk</u>. They can be contacted by phone at 519-661-3800 or ext. 83800.

<u>Google Chrome</u> or <u>Mozilla Firefox</u> are the preferred browsers to optimally use OWL; update your browsers frequently. Students interested in evaluating their internet speed, please click here.

## **Online Participation and Engagement**

$\boxtimes$	Students are expected to participate and engage with content as much as possible.
$\boxtimes$	$\cline{oxed}$ Students can participate during lab sessions or post on Forum after watching the recording
$\boxtimes$	Students can also participate by interacting in the forums with their peers and instructors

#### 2. Instructor Information

Dr. Niki Sharan Course Coordinator and Instructor nsharan@uwo.ca

Dr. Vera Tai Instructor vtai4@uwo.ca

Ms. Winona Gadapati Skill Development Coordinator wgadapa2@uwo.ca

Students must use their Western (@uwo.ca) email addresses when contacting their instructors. If emails from non-western accounts are used, they will be deleted.

# 3. Course Description/Syllabus

# **Course Description**

Biology 1001A is designed to help students in the Faculty of Science and Faculty of Health Science build on the knowledge and skills acquired in Secondary School Biology as preparation for success in second year programs in the Biological Sciences.

## **Educational Outcomes**

By engaging in this learning environment, students can expect to enhance their ability to:

- 1. Build productive academic relationships with diverse members of the FYB community.
- 2. Collaborate with peers and/or instructors to create consensus around diverse

ideas (e.g. during classes, studying, preparing team assignments).

- 3. Apply effective learning strategies to academic work.
- 4. Demonstrate a broad understanding, application, and analysis, of evolutionary principles pertaining to the origin and inheritance of genetic variation.
- 5. Communicate scientificideastoan audience of peersand/or instructors in written, oral and graphic formats.
- 6. Apply scientific experimental design, equipment, skills and analyses to test hypotheses.
- 7. Locate, evaluate, and extract scientific ideas from academic and non-academic literature; ethically incorporate such ideas into academic work.

#### Class Schedule.

Week of	Cycle #	Lecture #	Biology 1001A Class Schedule 2021			
7-Sep		1	Welcome Lecture	Sharan/Tai		
13-Sep	1	1	en 1	2	Why Evolution is True	Tai
12-2eh		3	What is evolution, why is it important, and what evidence supports it?	lai		
20-Sep	2	4	Cell Cycle and Cell Division			
20-3ер		5	How are progeny cells produced and how can diversity be generated during cell division?			
27-Sep	3	6	Inheritance of Sameness			
27-3ер	3	7	How can we quantify the genetic material of an organism?			
4-Oct	4	8	DNA Mutations and Repair	Sharan		
4-000	4	9	What different mechanisms create mutations?	Silaran		
Thanksg	iving: Mo	nday Oct	11; no skill development sessions all week but lectures are ON.			
11-Oct	5	10	Genetics and Inheritance			
11-000		11	How is genetic information passed on and how do genes interact?			
Term Test	1: Sunda	y, October	17 from 10:00 AM -12:00 PM (Room numbers TBA on OWL)			
18-Oct	6	6	. 6	12	Variation in Populations:	
10-000		13	How do selection, genetic drift, and other forces affect genetic variation?			
25-Oct	ct 7	14	All about sex			
25-000	,	15	Why reproduce sexually?			
Reading	Week: N	ov 1st to	5th; no lectures or skill development sessions			
8-Nov	8	16	Species and Speciation			
0-11UV	8	17	Where do new species come from?			
Term Test	t 2: Sunda	y, Novemb	er 14 from 10:00 AM -12:00 PM (Room numbers TBA on OWL)	Tai		
45 N	0	18	Evolutionary Relationships (Phylogeny)			
15-Nov	9	19	How are different groups of organisms related?			
22.11	40	20	Diversity of Life			
22-Nov	10	21	Who do we share this planet with? How did humans evolve?			
20 No.	11	22	Ecology in the Anthropocene			
29-Nov	11	23	What are the limits to population growth? How do humans affect other life?			
Final Exa	ım date a	nd time to	be announced by registrar's office - See Western Exam Schedule in December			

## **Key Sessional Dates:**

Classes begin: September 8, 2021

October Term Test I: October 17, 2021 from 10:00 AM – 12:00 PM EST

Reading Week: November 1-7

November Term Test II: Nov 14, 2021 from 10:00 AM – 12:00 PM EST

Classes end: December 8, 2021

Final Exam: Scheduled by Registrar (See Western Timetable in December)

All room numbers for tests will be posted on OWL. Room numbers for final exam will be posted by the registrar's office (check exam timetable in Dec).

#### 4. Course Materials

Computer, Camera, Microphone, Stable internet, Textbook (*Biology: Exploring the Diversity of Life by Russell et al.* 4<sup>th</sup> Canadian Edition), Labster, SimUText, MindTap (optional)

Students should check OWL (<a href="http://owl.uwo.ca">http://owl.uwo.ca</a>) on a regular basis for news and updates. This is the primary method by which information will be disseminated to all students in the class. Students are responsible for checking OWL on a regular basis so they don't miss any important announcement. Missing such announcements can have an impact on their grades.

All course material will be posted to OWL: http://owl.uwo.ca.

If students need assistance, they can seek support on the OWL Help page. Alternatively, they can contact the Western Technology Services Helpdesk. They can be contacted by phone at 519-661-3800 or ext. 83800.

### **Technical Requirements**

Stable internet connection, computer with working microphone and webcam, Labster, SimUText, MindTap (optional).

#### 5. Methods of Evaluation

The overall course grade will be calculated as listed below:

OWL Quizzes	10%
Skill Development (Labs)	20%
Term Test 1 (Oct Test)	15%
Term Test 2 (Nov Test)	20%
Final Exam	35%

## Alternate Grading

Since all Tests and the Final Exam are cumulative, you can get 3 chances to show your understanding of the course content. For example, if Term Test 1 goes poorly for you, half of its weight (7.5%) will be transferred to Term Test 2 where you will have another chance. If Term Test 2 goes poorly for you, then half of its weight (10%) will be transferred to the Final Exam. If both Term Tests are low, half of the weight from each will be transferred to the Final Exam

where you may perform better. If you miss either the Oct, Nov or both tests, the weighting of your final grade will change. As shown in the Table below, we will calculate your Final Grade in various different ways and whichever distribution works in your favour will be your final grade. Weights below don't include Quizzes (10%) and Skill Development (20%). Added these 2 components will lead to a total of 100.

	Standard	Oct Low	Nov	Both Low	Oct	Nov	Both
			Low		Miss	Miss	Miss
Oct Test	15	7.5	15	7.5	0	15	0
Nov Test	20	27.5	10	10	27.5	0	0
Final	35	35	45	52.5	42.5	55	70
Exam							
Total	70	70	70	70	70	70	70

All tests and final exam will be in-person. All information relating to the tests and final exam will be posted on OWL in the "Term Tests and Final Exam" tab.

- October Test will consist of MC questions only and will cover Cycles 1, 2, 3, 4 and Skills Module 1.
- November Test will be cumulative. consist of MC questions only and will cover Cycles 1-8 (inclusive) and Skills Modules 1, 2 and 3. Most of the questions will come from cycles that were not previously tested.
- Details of the Final Exam structure will be posted on OWL. The final exam will be cumulative and will cover material from Cycles 1 to 11 and Skills Modules 1-4 (inclusive).
  Most of the questions will come from cycles that were not previously tested.

In order to pass the course, you MUST write the final exam and pass the skill development portion of the course.

Click <u>here</u> for a detailed and comprehensive set of policies and regulations concerning examinations and grading. The table below outlines the University-wide grade descriptors.

A+	90-100	One could scarcely expect better from a student at this level
Α	80-89	Superior work which is clearly above average
В	70-79	Good work, meeting all requirements, and eminently satisfactory
С	60-69	Competent work, meeting requirements
D	50-59	Fair work, minimally acceptable
F	below 50	Fail

Students will have 1 submission for al assessments.

After an assessment is returned, students should wait 24 hours to digest feedback before contacting their evaluator; to ensure a timely response, reach out within 7 days.

## **Skill Development**

Labs in this course are called "Skill Development". This is a mandatory component of the course. Failure to complete this component will lead to failure of Skills and having to repeat it in a future year. You MUST have documentation to miss a skills session (consideration from counselor or self-report). Note: You can only miss 2 skill development sessions (with official documentation). In other words, you cannot use more than 2 SRA OR 2 academic considerations OR 1SRA 1 academic consideration towards skills component. Anything that you miss after the 2 sessions, will lead to a grade of zero for that session and/or assessment.

### **Accommodated Evaluations**

There are no Make-ups for quizzes or October Test. November test has a Make-up. If you miss a test, the weight of the test will be transferred to the weight of another test and/or final exam.

#### Information about late or missed evaluations:

X	Late assessments without self-reported absences (SRA) will be subject to a grade of zero.
$\boxtimes$	Late assessments <u>with</u> self-reported absences should be submitted within 24 hours of the end of the 48-hour period.
X	An assessment cannot be submitted after it has been returned to the class [the weight will be transferred to another assessment]
$\boxtimes$	A make-up test will be offered OR the weight of a missed test will be transferred to the final
	exam.
$\boxtimes$	If a make-up final exam is missed, the student will receive an INC and complete the task the next time the course is offered

#### 6. EDI statement

The pronouns used by:

• The instructors are: he/she/them

• The TAs are: he/she/them

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# 7. Land acknowledgment

We acknowledge that Western University is located on the traditional lands of the Anishinaabek, Haudenosaunee, Lūnaapéewak and Attawandaron peoples, on lands connected with the London Township and Sombra Treaties of 1796 and the Dish with One Spoon Covenant Wampum. This land continues to be home to diverse Indigenous peoples (e.g. First Nations, Métis and Inuit) whom we recognize as contemporary stewards of the land and vital contributors of our society.

More information about Indigenous Services (<a href="https://indigenous.uwo.ca/">https://indigenous.uwo.ca/</a>) and this Land Acknowledgement (<a href="https://communications.uwo.ca/comms/land-acknowledgement/">https://communications.uwo.ca/comms/land-acknowledgement/</a>) are available.

# 7. Accommodation and Accessibility

#### **Accommodation Policies**

Students with disabilities work with Accessible Education (formerly SSD) which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The Academic Accommodation for Students with Disabilities policy can be found at:

https://www.uwo.ca/univsec/pdf/academic\_policies/appeals/Academic Accommodation\_disabilities.pdf

## **Academic Consideration for Student Absence**

Students will have up to two (2) opportunities during the regular academic year to use an online portal to self-report an absence during the semester, provided the following conditions are met: the absence is no more than 48 hours in duration, and the assessment for which consideration is being sought is worth 30% or less of the student's final grade. Students are expected to contact their instructors within 24 hours of the end of the period of the self-reported absence, unless noted on the syllabus. Students are not able to use the self-reporting option in the following circumstances:

- for exams scheduled by the Office of the Registrar (e.g., December and April exams)
- absence of a duration greater than 48 hours,
- assessments worth more than 30% of the student's final grade,
- if a student has already used the self-reporting portal twice during the academic year

If the conditions for a Self-Reported Absence are *not* met, students will need to provide a Student Medical Certificate if the absence is medical, or provide appropriate documentation if there are compassionate grounds for the absence in question. Students are encouraged to contact their Faculty academic counselling office to obtain more information about the relevant documentation.

Students should also note that individual instructors are not permitted to receive documentation directly from a student, whether in support of an application for consideration on medical grounds, or for other reasons. All documentation required for absences that are not covered by the Self-Reported Absence Policy must be submitted to the Academic Counselling office of a student's Home Faculty.

For policy on Academic Consideration for Student Absences - Undergraduate Students in First Entry Programs, see:

https://www.uwo.ca/univsec/pdf/academic\_policies/appeals/Academic\_Consideration\_for\_absences.pdf

and for the Student Medical Certificate (SMC), see:

http://www.uwo.ca/univsec/pdf/academic\_policies/appeals/medicalform.pdf

## **Religious Accommodation**

Students should consult the University's list of recognized religious holidays, and should give reasonable notice in writing, prior to the holiday, to the Instructor and an Academic Counsellor if their course requirements will be affected by a religious observance. Additional information is given in the Western Multicultural Calendar:

https://multiculturalcalendar.com/ecal/index.php?s=c-univwo

You may also be eligible to write the Special Exam if you are in a "Multiple Exam Situation" (see http://www.registrar.uwo.ca/examinations/exam schedule.html).

If a student fails to write a scheduled Special Examination, the date of the next Special Examination (if granted) normally will be the scheduled date for the final exam the next time this course is offered. The maximum course load for that term will be reduced by the credit of the course(s) for which the final examination has been deferred. See Academic Calendar for details (under Special Examinations).

#### 8. Academic Policies

The website for Registrarial Services is http://www.registrar.uwo.ca.

In accordance with policy, http://www.uwo.ca/its/identity/activatenonstudent.html, the centrally administered e-mail account provided to students will be considered the individual's official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at his/her official university address is attended to in a timely manner.

All of the remote learning sessions for this course will be recorded. The data captured during these recordings may include your image, voice recordings, chat logs and personal identifiers (name displayed on the screen). The recordings will be used for educational purposes related to this course, including evaluations. The recordings may be disclosed to other individuals participating in the course for their private or group study purposes. Please contact the instructor if you have any concerns related to session recordings.

Participants in this course are not permitted to record the sessions, except where recording is an approved accommodation, or the participant has the prior written permission of the instructor.

No electronic devices or any other material are permitted during tests and exams.

**Scholastic offences** are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site:

http://www.uwo.ca/univsec/pdf/academic policies/appeals/scholastic discipline undergrad.pdf.

Turnitin <u>aids</u> in identifying plagiarism. All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (http://www.turnitin.com).

Completion of this course will require you to have a reliable internet connection and a device that meets the system requirements for Zoom. Information about the system requirements are available at the following link:

https://support.zoom.us/hc/en-us

\* Please note that Zoom servers are located outside Canada. If you would prefer to use only your first name or a nickname to login to Zoom, please provide this information to the instructor in advance of the test or examination.

## **Professionalism & Privacy:**

Western students are expected to follow the <u>Student Code of Conduct</u>. Additionally, the following expectations and professional conduct apply to this course:

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$\boxtimes$ Students are expected to follow online etiquette expectations provided under "Essential Info" tab on OWL
All course materials created by the instructor(s) are copyrighted and cannot be sold/shared
Recordings are not permitted (audio or video) without explicit permission
Permitted recordings are not to be distributed
Students will be expected to take an academic integrity pledge before some assessments
All recorded sessions will remain within the course site or unlisted if streamed

## Online and In-Person Etiquette:

Some components of this course will involve online interactions. To ensure the best experience for both you and your classmates, please honour the following rules of etiquette:

- use your computer and/or laptop if possible (as opposed to a cell phone or tablet)
- ensure that you are in a private location to protect the confidentiality of discussions in the event that a class discussion deals with sensitive or personal material
- to minimize background noise, mute your microphone for the entire class until you are invited to speak, unless directed otherwise
- In order to give us optimum bandwidth and web quality, turn off your video camera for the entire class unless you are invited to speak
- Please be prepared to turn your video camera off at the instructor's request if the internet connection becomes unstable
- Unless invited by your instructor, do not share your screen in the meeting The course instructor or TA will act as moderator for the class and will deal with any questions from participants. To participate please consider the following:

- If you wish to speak, use the "raise hand" function and wait for the instructor to acknowledge you before beginning your comment or question.
- Please remember to unmute your microphone and turn on your video camera before speaking.
- Self-identify when speaking.
- Please remember to mute your mic and turn off your video camera after speaking (unless directed otherwise).

General considerations of "netiquette":

- Keep in mind the different cultural and linguistic backgrounds of the students in the course.
- Be courteous toward the instructor, your colleagues, and authors whose work you are discussing.
- Be respectful of the diversity of viewpoints that you will encounter in the class and in your readings. The exchange of diverse ideas and opinions is part of the scholarly environment. "Flaming" is never appropriate.
- Be professional and scholarly in all online postings. Use proper grammar and spelling. Cite the ideas of others appropriately.

Note that disruptive behaviour of any type during online classes, including inappropriate use of the chat function, is unacceptable. Students found guilty of Zoom-bombing a class or of other serious online offenses may be subject to disciplinary measures under the Code of Student Conduct.

# 8. Support Services

Please visit the Science & Basic Medical Sciences Academic Counselling webpage for information on add/drop courses, academic considerations for absences, appeals, exam conflicts, and many other academic related matters: <a href="https://www.uwo.ca/sci/counselling/">https://www.uwo.ca/sci/counselling/</a>

Please contact the course instructor if you require lecture or printed material in an alternate format or if any other arrangements can make this course more accessible to you. You may also wish to contact Student Accessibility Services (SAS) at 661-2147 if you have any questions regarding accommodations.

The policy on Accommodation for Students with Disabilities can be found here: <a href="https://www.uwo.ca/univsec/pdf/academic policies/appeals/Academic%20Accommodation disabilities.pdf">https://www.uwo.ca/univsec/pdf/academic policies/appeals/Academic%20Accommodation disabilities.pdf</a>

The policy on Accommodation for Religious Holidays can be found here: http://www.uwo.ca/univsec/pdf/academic\_policies/appeals/accommodation\_religious.pdf

Western University is committed to a thriving campus as we deliver our courses in the mixed model of both virtual and face-to-face formats. We encourage you to check out the Digital Student Experience website to manage your academics and well-being: <a href="https://www.uwo.ca/se/digital/">https://www.uwo.ca/se/digital/</a>.

[optional] Learning-skills counsellors at the Student Development Centre (http://www.sdc.uwo.ca) are ready to help you improve your learning skills. They offer presentations on strategies for improving time management, multiple-choice exam preparation/writing, textbook reading, and more. Individual support is offered throughout the Fall/Winter terms in the drop-in Learning Help Centre, and year-round through individual counselling.

Students who are in emotional/mental distress should refer to Mental Health@Western (<a href="http://www.health.uwo.ca/mental health">http://www.health.uwo.ca/mental health</a> ) for a complete list of options about how to obtain help.

Additional student-run support services are offered by the USC, http://westernusc.ca/services.

Additional.

The following links provide information about support services at Western University.

Academic Counselling (Science and Basic Medical Sciences)

**Appeal Procedures** 

Registrarial Services

**Student Development Services** 

**Student Health Services**